

MCCC NEWS

Mid-Cities Commodore Club, Inc.

October Vol. 3 Issue 10

LARRY GROEBE

The new Commodore 128 is advertised as being "3 computers in one," since it has a C64 mode, a C128 mode, and a CP/M mode.

However, the C128 mode by itself is so powerful and has so many features (at least for the BASIC programmer) that I wonder how many folks will bother much with the other two "flavors" the computer can offer.

Between the 80 column display and improved screen editor, the C128 offers much more flexibility. That flexibility is available to both the BASIC programmer AND the machine language hacker, thanks to the built-in machine language monitor and a rich memory map.

The overall organization of the C128 running in it's native mode is quite different from previous Commodore computers. Things just aren't where they used to be. To get us strated on our tour of the 128's innards, here is an overall memory map:

HEX ADDRESS DESCRIPTION

0000BASIC Zero-Page storage

0090Kernal Zero-Page

0100FBUFFER, BASIC-DOS (?)

0200 Input buffer,
Some new kernal JMPS

0400VIC-chip Text screen
relocatable, but this is
where it wants to be.

0800Basic run-time stack

0A00Most monitor & kernal
absolute variables

0B00Casette input buffer

0C00RS-232 input buffer

0D00RS-232 output buffer

0E00Sprite Definition Area
This is reserved to hold
sprites, and apparently
MUST be located here to
use certain of the
BASIC sprite commands.

1000Function key Buffer

1100Misc. BASIC Graphics
and sound variables

1300EMPTY SPACE!

1400Empty -reserved for
foreign language (!)
but should be useable.

1800Available for "function
key software"

1C00Start of BASIC program
OR
Start of VIC-chip's
bitmap color screen

2000VIC-bitmap, if so chosen

4000Start of BASIC text
when VIC is in bitmap mode.

Cont'd on page 3



The MID-CITIES COMMODORE CLUB is a non-profit organization devoted to the collection and dissemination of computer knowledge, to the encouragement of computer education and to the use of Commodore computers in the home, at school and in business. Appropriate and legal use of all types of software is encouraged by this club.

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Our meetings are open to all. Yearly membership dues are \$20.00 and entitle the member to a monthly mailed copy of the MCCC NEWS, the club newsletter, library copying privileges, attendance at any or all chapter and club meetings as well as participation in club-sponsored classes. Dues are paid on a calendar year basis and new members who join after March 31 of each year pay prorated dues for the months remaining.

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\$60.00 per full page ad, \$30.00 per half page ad, \$20.00 per quarter page ad and \$10.00 per business card. Non-members will pay commercial rates.

The deadline for submissions to the MCCC NEWS is the third Saturday of each month. PAYMENT MUST ACCOMPANY CAMERA-READY AD COPY. Make all checks payable to Mid-Cities Commodore Club and mail to MCCC NEWS, P.O. Box 1578, Bedford, Texas 76021.

MEETINGS

Oct. 5 Board of Directors Mtg. 10 AM
Western Hills Inn

Oct. 12 GRAND PRAIRIE CHAPTER 1:30 PM
G. P. Public Library

ARLINGTON CHAPTER 10:00 AM
Downtown Arlington Library

FT. WORTH CHAPTER 1:30 PM
General Dynamics Rec. Area

Oct. 19 is the NL Deadline
for the November Issue.

Oct. 21 FT. WORTH NIGHT CHAPTER 7:00 PM
St. Elisabeth Episcopal Church

Oct. 22 GRAND PRAIRIE CHAPTER 6 PM
G. P. Public Library

Nov. 2 Board of Directors Mtg. 10:00 AM
Western Hills Inn



Oct. 19

***** New Time! New Place! *****

*
* QUARTERLY MEETING 10:00 AM
* Western Hills Inn
* Hwys. 10 and 157, Euless
*



COMING UP



Cont'd from page 1

(The following areas are shared with Basic programs. That is, if you POKE or PEEK to these locations you'll be working with what's listed below, even though BASIC can store a long program seemingly in the same space.)

D000VIC Character ROM

D000VIC registers

D400SID registers

D500MMU (Memory Management Unit) low registers

D6008563 80-column display chip registers

DC00CIA-6526 #1

DD00CIA-6526 #2

(end of shared area)

FF00MMU (Memory Management Unit) high registers

FF05The Kernal

The above information came from an advance copy of the "C128 Technical Reference Guide." In a later column, we'll delve more deeply into the technical details that make the C128 the unique computer it is. Stay tuned.

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THE CHAPTER MEETING: A PRESIDENT'S VIEW

by David Rye

'Twas the night before the meeting and all was going well. Two speakers were scheduled and confirmed; all the equipment would be there.

So, on the afternoon of the day of the meeting, everyone was getting prepared. Tony Velez and Laura Clements were setting up the library with the new library assistant, a lovely lady named Cheryl Howard. Bruce Nelson was setting out disks and caps.

Roger Hoggard and Randy Kusiv were setting up their wares. Alice and I were setting up chairs. Jerry Hull was there with his catalog system to share.

We were all looking forward to seeing a C128 Demo from Mike D'Angeli from Federated Videoland. But where was he? He said all was ready just last night. But what about today at 1:23 p.m.? Well, he was at work.



So with a borrowed monitor from one and cables from another, Roger said he would help us recover. (Mike loaned us a NEW C-128 Spreadsheet program to show.) Both demos were great even if we were a little late!

Thanks to all who helped us to have another good meeting. Thanks to Roger Hoggard for stepping in. And thanks to all who helped with the chairs.

I guess it was appropriate that Jerry's program was one to help us get (our disks) organized. See you next time.

MISCELLANEOUS

CCCC, Tucson, AZ

SYS 65341 will restart the new 128 in 128 mode. Similar to the SYS64738 in the 64.

SYS 32800,123,45,6 - try it on your 128!



PRESIDENT'S COLUMN

BILL RAECKE

LEARNING ABOUT YOUR COMMODORE

I know that much of our membership is composed of new computer owners. I also know that many of you feel overwhelmed by all the information you are asked to absorb and are confused about where to get the answers you need. This article is for you. There is a wealth of information available if you just know where to look or who to ask.

One of your primary sources of information should be your MCCC chapter meeting. Don't be afraid to ask questions. At least half of the people present at our meetings are beginners just like you who want to know the answers to the very same questions. The big advantage of asking at the meeting is that there are many people available to answer. If one person doesn't know, someone else probably will. Remember, the only dumb question is the one that is never asked.

Another good source of information are the club officers. Stop us after the meeting or call us at home - that's why our phone numbers are published. If we don't know the answers to your questions, as seems to happen to me quite often lately, we will try to refer you to someone else.

There is one other major forum within the club for getting your questions answered. - our MCCC Bulletin Board. The Message Base is an excellent place to leave a question.

So much for questions. What if you don't know the questions? First, attend meetings and absorb what you can. Second, read. There are several excellent magazines available for the Commodore. Most have articles designed for beginning users as well as experienced programmers and all of them will help keep you abreast of the latest software and hardware. A great deal of what I know about my Commodore was learned from reading magazines. Most of what I know about programming was learned from typing in programs from magazines. They are an invaluable source of information. Check the reference guide that follows for names and addresses just in case you can't find them in the local magazine racks.

Above all, don't give up. Computing is fun.

COMMODORE COMPUTING REFERENCE GUIDE

COMPUTE!'S GAZETTE

P.O. Box 10957

Des Moines, IA 50347

Yearly Subscription(12 Issues): \$24.00

RUN

CW Communications/Peterborough

P.O. Box 954

Farmingdale, NY 11737

Yearly Subscription (12 Issues): \$19.97

RHOY!

P.O. Box 341

Mt. Morris, IL 61054

Yearly Subscription (12 Issues): \$19.95

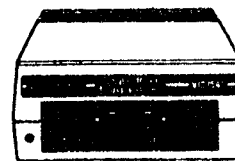
INFO

Info Publications

P.O. Box 2300

Iowa City, IA 52244

Yearly Subscription (6 Issues): \$14.00



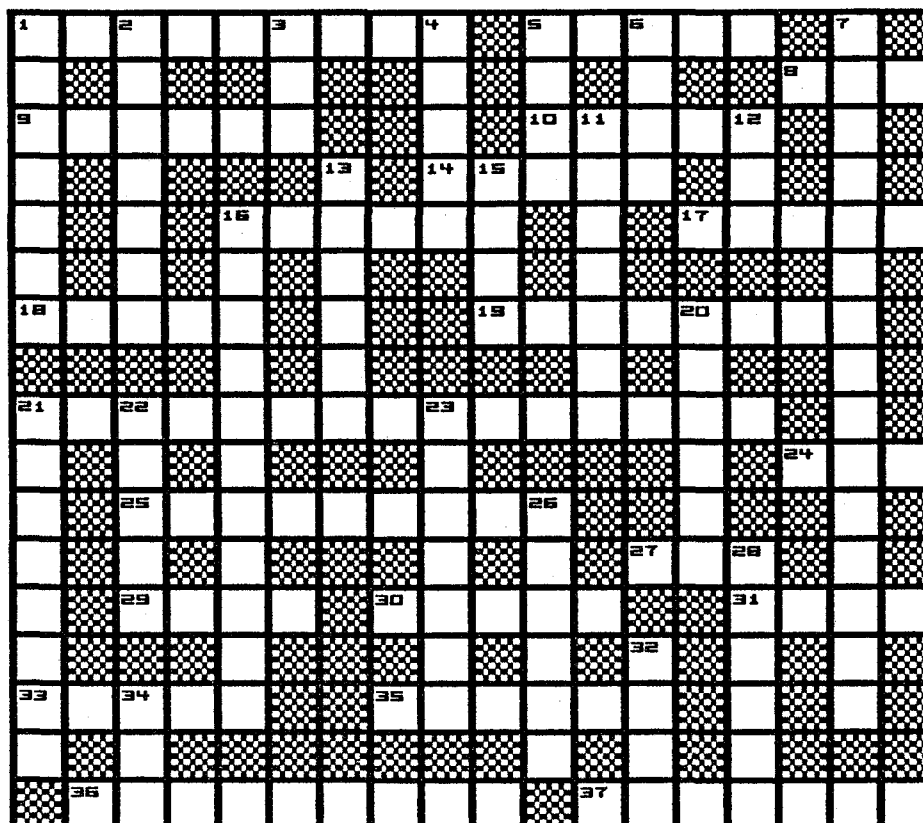
SOF-TEX

Disk Drive Service

Commodore 64
Service

ROGER HOGGARD
(817) 281-2608

At the time of printing, the prospects of having an AMIGA at the Quarterly Meeting, Oct. 19, look very good. Keep your fingers crossed; we're trying hard to get one for your inspection and enjoyment!



This puzzle was created using CROSSWORD MAGIC, available at both Babbage's and Federated. It's a fun program and produces very nice results on a variety of printers.

ACROSS CLUES

1. Diagram used by Roger Hoggard
5. Main-----
8. Random Access Memory
9. Insert's partner
10. Mach-5 increases loading -----
14. ----- BASIC
16. A small moveable object
17. American Standard Code for Information Interchange
18. ----- supply
19. Practifile, for example
21. CHR\$
24. Last line of a simple program
25. Generates machine code
27. Micron---- camera
29. Type of interface
30. English governess
31. Must be done to DATA statements
33. ET's friend
35. ----- maps
36. Joystick or modem, for examaple
37. Kathy and Bruce

DOWN CLUES

1. Responsible for 64's sound
2. "Sacred cattle", expression
3. High card
4. Output byte to serial port, 65448
5. -----Load by Epyx
6. Length times width
7. ML
11. Gemini 10, for example
12. Disk Operating System
13. Cursor
15. Front position
16. Practicalc, for example
20. Base two
21. Blitz!, for example
22. Tramiel's new endeavor
23. Part of ADSR
26. Lacking order or pattern
28. Syntax and illegal quantity messages
32. Eight bits
34. Increment memory by one

ON-LINE

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XMODEM: If you have ever transferred programs to or from Commodore bulletin boards, chances are that you used the new Punter protocol. However, that protocol is specific to Commodore machines, and won't get you very far in file swaps with non-Commodore computers such as Apples, IBM's or the mainframes run by the likes of CompuServe. (CompuServe, by the way, is rumored to be working on a Punter emulation system, but don't hold your breath.) It is nonetheless possible to upload and download files to and from these machines, and to do so with error checking similar to that in the Punter routine. The key is to use the XMODEM protocol, honored by several terminal programs for the C-64 (e.g., XMODEM64, and XMOBUF 7.3). Anyone who gets into telecommunications will, sooner or later, encounter the venerable XMODEM; so, let's take a closer look at what it is, exactly how it works, and how to get the most from it. This will be the first of a two-part series. This month we will examine the protocol itself, and next time we'll explore one of the better public domain terminal programs for the C-64 which uses XMODEM.

First of all, XMODEM is a file transfer protocol, a set of rules within a communications program, used by two parties to exchange disk files. The exchange is executed by an established error checking routine that, while not foolproof, nonetheless offers the receiver a high probability of winding up with a true copy of the sender's file. XMODEM was originally developed by telecomputing pioneer Ward Christensen, and is sometimes named after its author.

The strongest point of XMODEM, in my view, is that it is the closest thing we have to a universal or "generic" error checking protocol. XMODEM is part of numerous programs, public domain and commercial, written for various computers. As a result, quite different computers, running different terminal programs, can swap files as long as both sides honor the rules. I've used XMODEM to send files

to an IBM PC and I several of my cohorts have traded files with an Apple II. Probably the most exciting development for C-64 owners, however, is CompuServe's recent adoption of XMODEM in its Commodore download section; it's now possible to download executable programs directly, without the intermediate conversion hassles found in image and "ASCII listing" transfers.

There are, of course, limitations to what XMODEM can do. The protocol helps to assure error-free transmission of programs, but does not convert programs written for one machine to code that will run on a completely different beast. A program you download must be compatible with your equipment in the first place, or it won't run. This means that a C-64 program uploaded by XMODEM to an IBM PC will arrive in pristine shape, but will not work on Big Blue's computer. However, ordinary ASCII text files (without printer control codes) can be exchanged and easily read.

Here's how XMODEM works. To begin with, both parties must communicate at 8 bit word size, no parity. The most important thing to remember about the transfer itself is that the sender goes into the hold for start loop first. In this holding pattern, the sender waits for the receiver to transmit a NAK signal (negative acknowledge, ASCII value 21.) The receiver must emit the NAK periodically, usually once every 10 seconds, to get things rolling. Once the sender grabs onto the initial NAK, the whole shebang gets underway. A file is transmitted in a series of blocks, each consisting of a header, 128 data bytes, and a checksum. The header begins with an SOH character (meaning start of header, ASCII value 1), followed by the block number and the ASCII value for one's complement (1's and 0's reversed) of the block number. The 128 data bytes are next. Trailing the data is the ASCII value for the checksum of all data bytes. (Don't confuse an XMODEM block with the Commodore disk block.)

The receiver's terminal program is kept busy with housekeeping chores to make sure everything is in order, as the block arrives. The first character is checked to see if it is, in fact, an SOH. The block number is examined next to make certain it's in the correct sequence. Then the

data bytes are tallied, with the resultant checksum compared to the checksum received. If there are no header discrepancies, and if the sums match, the receiver calls for the next block by sending an ACK signal (acknowledge, ASCII value 6.) Errors, on the other hand, cause the receiver to say, in effect, "what was that again?" by calling for a re-transmission of the errant block; the request is made by sending NAK. Most programs will try resending problem blocks several times before giving up in total frustration. What you need to keep in mind is that if your download dies in progress, you will wind up with an incomplete file that should be deleted from your disk.

When the end of the file is successfully reached, the sender shouts hooray by tossing an EOT character (end of transmission, ASCII value 4), to which the receiver salutes with an ACK. Fortunately, all of this accounting and signal exchanging is handled automatically by the respective terminal programs. All you need do is follow your program's prompts and hope for the best. Most programs display status lines of some sort, during the actual transfer, so both sides know how things are going, block by block, ACK by NAK.

To get the most from XMODEM, be patient. Transfers are slow compared to other protocols. Recognize, too, that although the protocol itself is standardized, the parent terminal programs are not, meaning program prompts may differ from caller to caller. Thus, you may receive different "go to download" messages, depending on your partner's program. Furthermore, some C-64 programs perform painfully slow buffer fills for each block, causing "time-out" messages on some non-Commodore systems; your correspondent may thereby be misled into thinking something has gone amiss. To avoid catastrophe, conduct preliminary "chats" in terminal mode, and be certain the receiver will stand by as the sender goes into the hold loop. Because XMODEM loses reliability at higher baud rates, you should stay with 300 baud. Finally, reserve XMODEM for non-Commodore links; use Punter's routines for Commodore to Commodore exchanges whenever possible.

All in all, XMODEM is a valuable protocol, one that should be in at least one of your telecommunication programs; it

lets you confidently swap data with non-Commodore computers. In part two of this series, we'll review XMOBUF 7.3, a public domain terminal program for the C-64 which incorporates the XMODEM protocol.



NEW LIBRARY DISKS

MACHINE LANGUAGE

412

```

*****
# 64 MEMORY CHART  EXTRAMON INST  USR(PEEK).INST  #
# CROSS-REF(C)      EXTRAMON.4.0B  DUMP          #
# DISASSEMBLER      EXTRAMON.4.0G  LOAD ADDR      #
# LISTER.V64        EXTRAMON9B$1000  RONMON        #
# STRING THING      EXTRAMON9G$1000  K64          #
# STRING THING 64   MAE/DOS FOR 4.0  64 KERNAL      #
# SUPER VICMON2     BMBSTRNGTHN6.ASM  KERNAL06      #
# SUPERMON INST     STRINGTHNG.EXE   XMON64L(BASIC) #
# SUPERMON1.REL     EXTRAMON (4096)  XMON64C(50135) #
# SUPERMON2.REL     EXTRAMON INSTR   XMON64H(29900)  #
# SUPERMON4.REL     MEMORY DUMP      XMON64T(38083)  #
# SUPERMON64.V1     MICROMON (4096)  INSTRUCTIONS  #
# TINYMOM INST      MICROMON INSTR   DOS IN BASIC    #
# TINYMOM1 FOR VIC  DISASSEMBLER.P   4.0 ASM/MONITOR #
# INST.64MONITOR    HEX ED 1.1      MHD-MINI HEX DMP  #
# 64 MONITOR        USR(PEEK)(SBRTN) #
# SAMPLE HEX1000    USR(PEEK).DEMO  #
*****
84 BLOCKS FREE

```

MACH LANG 2

413

```

*****
# HEX FILE DUMP      SUPERMON LOADER  BASICMON      #
# DISK DISASSEMBLE   SUPERMON INSTR.  MLX DUMP      #
# DIS TEST          64 MEMORY MAP     MEMORY PRINTER #
# DOS DISASSEM.     HEX/DEC           HEX/DEC/CONV  #
# SUPERMON          BOOT TINY AID     SMON          #
# SUPERMON.I        TINY AID $C066    SMON.COMMANDS  #
# PAL UNASSM        INTRO TO 6502    PRINT SMON.CMDS #
# MAE TO PAL        MICROMON.V2.DOC   POWER.CT       #
# MONITOR$8000      MICROMON.V2$1000  413MACH LANG 2 #
# MONITOR$C000      LIST-ME MAP.L     #
# MICROMON 49152    DISK MAP.C        #
# CBM SYMB DIS      GENERATE MLX LST  #
*****
27 BLOCKS FREE

```



REVIEWS REVIEWS REVIEWS



MCCC NEWS REVIEWS THE LATEST SOFTWARE
COURTESY OF BABBAGE'S AND FEDERATED/VIDEOLAND

SIXTH SENSE MICROTECHNIC SOLUTIONS, INC.

By Laura Clements

If you want to add a little meat to your modem, try Sixth Sense, from Microtechnic Solutions, Inc. The features of this program exceed those of Firstterm, VidTex, or VIP Term.

The first thing to be done upon opening the package, is to prepare to spend at least two evenings digesting the documentation. The problem is not one of length as it is poor arrangement. For example, when trying to find out the size of the buffer, the only place found with the word "buffer" listed was the glossary. (The buffer turned out to be 700 lines.) Nowhere in the documentation is there a start up tutorial. However, this program is obviously meant for the advanced telecommunicator, not for just a beginner. The program will support one or two 1541 drives, the 4040 drive, and both of the MSD drives. It is compatible with the 1525 and 1526 printers, and any interfaced ASCII printer.

The Sixth Sense program claims to work with the Commodore 1600, 1650, 1660, 1670, Westridge, Mitey Mo, HesModem I and II and any RS-232 modem. (I used the program to call up StarText with my Telelearning modem.)

The 700 line virtual screen buffer allows for a two-way fast search by line and page. This buffer can be saved to a disk or printed as hardcopy.

There are 16 help screens which allows the user to access the submenus. The status line at the bottom of the screen shows 13 different items, including line number, delay, X-on/off flag, printer, disk write and read channels, 24 hour clock counter, etc.

There are 16 macros that are programmable through the function keys and can handle up to 80 characters per key. System functions can be programmed into these macros and conditional tests can be set.

Text files for uploading can be created through the screen editor, which will also allow editing of downloaded files. Utility routines for text-to-program conversion and vice versa are provided. It allows DOS wedge commands, the handling of ASCII/PETASCII text, XModem or CompuServe-B protocol modes.

This program could be overkill for the beginning or parttime telecommunicator, but for the person who spends hours every evening exploring the world of BBS's, the Sixth Sense would be ideal. It will not, however, work with the MCCC BBS.



TEMPLE OF APSHAI TRILOGY EPYX SOFTWARE

EPYX SOFTWARE is famous for great games and good sequels such as Summer Games and Pitstop. The TEMPLE OF APSHAI TRILOGY is an excellent remake of three Epyx SOFTWARE originals, Temple of Apshai, The Upper Reaches of Apshai and The Curse of Ra. The original games were considered "state of the art" in their day were honored by several awards. As everyone knows programming has come a long way in the areas of graphics and sound! The enhancements added by Epyx reflect this very well.

The characters are the same in the Trilogy as in the originals including The Innkeeper, The Dwarf, The Cleric and The Magic User. There are 12 levels, 568 rooms and over 35 different monsters to keep you occupied throughout the game. The games feature advanced hires graphics, quality music and faster game play which is the biggest plus over the originals. If you have not played the originals you will still enjoy the Trilogy. If you were a lover of the Temple of Apshai you will like the Trilogy even more.

HACKER ACTIVISION

HACKER is a totally new type of adventure game which comes with absolutely no instructions other than how to load the program. The premise is that you have stumbled into somebody else's computer system and you are someplace that you're really not supposed to be. "Logon please:" is all you get to start with. From there, it's up to you although the rules will become obvious after your first few tries and hints are given freely.

HACKER will involve you in several different puzzles at the same time. It is basically a graphic adventure that you control by joystick and one letter commands. You will also need to map a simple maze and use your memory, strategy and, above all, logic skills to solve this layered set of puzzles. It has a nice amount of humor and authenticity. In Switzerland you are spoken to in French, etc.

HACKER is sometimes unpredictable and the graphics are excellent. It is visual, intellectual and creative. This is one of the very few games I have become excited about (to the point of not being able to put it down) and it is definately one of the best games I have seen this year.



THE HALLEY PROJECT MINDSCAPE SOFTWARE

THE HALLEY PROJECT: A mission in our solar system. You're at the controls of your spaceship and your mission is to qualify for the HALLEY PROJECT, a top secret exploration that only the most elite star pilots will be ask to join. To prove you qualify, P.L.A.N.E.T. requires you to use your knowledge of the solar system to locate and land on planets and moons. If all this sounds difficult, it is. This game has several good qualities, in fact it is a good game overall but it must be played in segments and each one could take hours to complete. This is not just another arcade-type space game. THE HALLEY PROJECT is a very good game but I would not recommend it for children under the age of 12.

GOLDEN OLDIES SOFTWARE COUNTRY Distributed by Electronic Arts

It surprises me that Electronic Arts would put it's name on a piece of software that is as bad as GOLDEN OLDIES. The attractive packaging leads you to believe that new enhancements to four classic computer games are outstanding. "... We have included an alternative version (of each game) that takes full advantage of your modern microcomputer's capabilities." This statement is far from accurate. (See article in this issue about advertising and warranties.)

The Pong game, for example, uses the open circle character from the keyboard and moves by printing, erasing and re-printing itself as it crosses the screen very slowly. No clever three dimensional sprites here.

This is characteristic of all the 'improved' games on this disk. Programming the enhancements would not challenge the average 6th grader to reproduce on a VIC20 in one evening. Don't waste your software allowance on this one.

HOT WHEELS EPYX SOFTWARE

Like BARBIE, HOT WHEELS will never take the place of the real thing but it does allow options only available on a computer. Children will enjoy picking out their favorite Hot Wheels car and customizing it in many different ways. You can paint your car to order or visit the factory to custom build a car. During the game you will take your car to the paint shop, gas station, car wash, parking garage and even the demolition derby! You can perform routine maintenance and repairs such as tune-ups and oil changes. There is also a segment where you can become a firefighter with your own hook-and-ladder truck. All these activities in one game make this the best driving game for younger children who may not have skill or the interest to play the adult driving games.

Note: With the recent popularity of vechicles that turn into robots, I fully expect to see another new game for youngsters next week called "Go-Bots"!

CATALINA COMMODORE COMPUTER CLUB, Inc. (CCCC, Inc.)

COMMODORE 64 TO 128 TRANSLATION TABLE

By DAVID LOVELOCK.

One of the first things to do on getting a C 128, is to translate programs from the 64. In cases where there are Pokes and Peeks, a conversation table is required. What follows is a table which I have constructed for this purpose. I obtained this table by comparing the built-in subroutines on both machines. There is no guarantee that these are correct, but at least it is a place to start! The left-hand column is the 64 memory location (in decimal and hex) - the right hand column is the 128 counterpart.

<u>CBM 64</u>		<u>CBM 128</u>		<u>CBM 64</u>		<u>CBM 128</u>		<u>CBM 64</u>		<u>CBM 128</u>	
Dec (Hex)	Dec (Hex)	Dec (Hex)	Dec (Hex)	Dec (Hex)	Dec (Hex)	Dec (Hex)	Dec (Hex)	Dec (Hex)	Dec (Hex)	Dec (Hex)	Dec (Hex)
0003(\$0003)	4476(\$117C)	0100(\$0064)	0102(\$0065)	0213(\$00D5)	0231(\$00E7)	0004(\$0004)	4477(\$117D)	0214(\$00D6)	0235(\$00EB)	0511(\$01FF)	0511(\$01FF)
0005(\$0005)	4474(\$117A)	0102(\$0066)	0104(\$0068)	0512(\$0200)	0512(\$0200)	0006(\$0006)	4475(\$117B)	0601(\$0259)	0866(\$0362)	0611(\$0263)	0876(\$036C)
0007(\$0007)	0009(\$0009)	0105(\$0069)	0106(\$006A)	0621(\$026D)	0886(\$0376)	0008(\$0008)	0010(\$000A)	0631(\$0277)	0842(\$034A)	0641(\$0281)	2565(\$0A05)
0011(\$000B)	0013(\$000D)	0107(\$006B)	0108(\$006C)	0642(\$0282)	2566(\$0A06)	0012(\$000C)	0014(\$000E)	0643(\$0283)	2567(\$0A07)	0644(\$0284)	2568(\$0A08)
0013(\$000D)	0015(\$000F)	0108(\$006C)	0109(\$006D)	0646(\$0286)	0241(\$00F1)	0014(\$000E)	0016(\$0010)	0649(\$0289)	2592(\$0A20)	0646(\$0286)	0241(\$00F1)
0016(\$0010)	0018(\$0012)	0109(\$006D)	0110(\$006E)	0650(\$028A)	2594(\$0A22)	0017(\$0011)	0019(\$0013)	0653(\$028D)	0211(\$00D3)	0649(\$0289)	2592(\$0A20)
0019(\$0013)	0021(\$0015)	0111(\$006F)	0112(\$0070)	0663(\$0297)	2580(\$0A14)	0020(\$0014)	0022(\$0016)	0780(\$030C)	0006(\$0006)	0650(\$028A)	2594(\$0A22)
0021(\$0015)	0023(\$0017)	0112(\$0070)	0113(\$0071)	0781(\$030D)	0007(\$0007)	0022(\$0016)	0023(\$0017)	0782(\$030E)	0008(\$0008)	0653(\$028D)	0211(\$00D3)
0023(\$0017)	0025(\$0019)	0113(\$0071)	0115(\$0073)	0783(\$030F)	0009(\$0009)	0025(\$0019)	0026(\$001A)	0784(\$0310)	4632(\$1218)	0663(\$0297)	2580(\$0A14)
0026(\$001A)	0028(\$001C)	0115(\$0073)	0896(\$0380)	0785(\$0311)	4633(\$1219)	0028(\$001C)	0029(\$001D)	0786(\$0312)	4634(\$121A)	0780(\$030C)	0006(\$0006)
0029(\$001D)	0031(\$001F)	0122(\$007A)	0061(\$003D)	0788(\$0314)	0788(\$0314)	0031(\$001F)	0032(\$0020)	0789(\$0315)	0789(\$0315)	0781(\$030D)	0007(\$0007)
0032(\$0020)	0033(\$0021)	0123(\$007B)	0062(\$003E)	0789(\$0315)	0789(\$0315)	0033(\$0021)	0034(\$0022)	0790(\$0316)	0790(\$0316)	0782(\$030E)	0008(\$0008)
0034(\$0022)	0036(\$0024)	0139(\$008B)	4635(\$121B)	0791(\$0317)	0791(\$0317)	0036(\$0024)	0038(\$0026)	0792(\$0318)	0792(\$0318)	0783(\$030F)	0009(\$0009)
0035(\$0023)	0037(\$0025)	0140(\$008C)	4636(\$121C)	0792(\$0318)	0792(\$0318)	0038(\$0026)	0039(\$0027)	0793(\$0319)	0793(\$0319)	0784(\$0310)	4632(\$1218)
0036(\$0024)	0038(\$0026)	0141(\$008D)	4637(\$121D)	0794(\$031A)	0794(\$031A)	0039(\$0027)	0040(\$0028)	0795(\$031B)	0795(\$031B)	0785(\$0311)	4633(\$1219)
0037(\$0025)	0039(\$0027)	0142(\$008E)	4638(\$121E)	0796(\$031C)	0796(\$031C)	0040(\$0028)	0041(\$0029)	0797(\$031D)	0797(\$031D)	0786(\$0312)	4634(\$121A)
0043(\$002B)	0045(\$002D)	0143(\$008F)	4639(\$121F)	0797(\$031D)	0797(\$031D)	0041(\$0029)	0042(\$002A)	0798(\$031E)	0798(\$031E)	0788(\$0314)	0788(\$0314)
0044(\$002C)	0046(\$002E)	0144(\$0090)	0144(\$0090)	0798(\$031E)	0798(\$031E)	0042(\$002A)	0043(\$002B)	0799(\$031F)	0799(\$031F)	0789(\$0315)	0789(\$0315)
0045(\$002D)	4624(\$1210)	0145(\$0091)	0145(\$0091)	0799(\$031F)	0799(\$031F)	0043(\$002B)	0044(\$002C)	0800(\$0320)	0800(\$0320)	0790(\$0316)	0790(\$0316)
0046(\$002E)	4625(\$1211)	0147(\$0093)	0147(\$0093)	0801(\$0321)	0801(\$0321)	0044(\$002C)	0045(\$002D)	0802(\$0322)	0802(\$0322)	0791(\$0317)	0791(\$0317)
0047(\$002F)	0049(\$0031)	0148(\$0094)	0148(\$0094)	0803(\$0323)	0803(\$0323)	0045(\$002D)	0046(\$002E)	0804(\$0324)	0804(\$0324)	0792(\$0318)	0792(\$0318)
0048(\$0030)	0050(\$0032)	0149(\$0095)	0149(\$0095)	0805(\$0325)	0805(\$0325)	0046(\$002E)	0047(\$002F)	0806(\$0326)	0806(\$0326)	0793(\$0319)	0793(\$0319)
0049(\$0031)	0051(\$0033)	0151(\$0097)	0151(\$0097)	0807(\$0327)	0807(\$0327)	0047(\$002F)	0048(\$0030)	0808(\$0328)	0808(\$0328)	0794(\$031A)	0794(\$031A)
0050(\$0032)	0052(\$0034)	0152(\$0098)	0152(\$0098)	0809(\$0329)	0809(\$0329)	0048(\$0030)	0049(\$0031)	0810(\$032A)	0810(\$032A)	0795(\$031B)	0795(\$031B)
0051(\$0033)	0053(\$0035)	0153(\$0099)	0153(\$0099)	0811(\$032B)	0811(\$032B)	0049(\$0031)	0050(\$0032)	0812(\$032C)	0812(\$032C)	0796(\$031C)	0796(\$031C)
0052(\$0034)	0054(\$0036)	0154(\$009A)	0154(\$009A)	0813(\$032D)	0813(\$032D)	0050(\$0032)	0051(\$0033)	0814(\$032E)	0814(\$032E)	0797(\$031D)	0797(\$031D)
0057(\$0039)	0059(\$003B)	0157(\$009D)	0157(\$009D)	0815(\$032F)	0815(\$032F)	0051(\$0033)	0052(\$0034)	0816(\$0330)	0816(\$0330)	0798(\$031E)	0798(\$031E)
0058(\$003A)	0060(\$003C)	0160(\$00A0)	0160(\$00A0)	0817(\$0331)	0817(\$0331)	0052(\$0034)	0053(\$0035)	0818(\$0332)	0818(\$0332)	0799(\$031F)	0799(\$031F)
0059(\$003B)	4608(\$1200)	0161(\$00A1)	0161(\$00A1)	0819(\$0333)	0819(\$0333)	0053(\$0035)	0054(\$0036)	0828(\$033C)	2816(\$0B00)	0800(\$0320)	0800(\$0320)
0060(\$003C)	4609(\$1201)	0162(\$00A2)	0162(\$00A2)			0054(\$0036)	0055(\$0037)			0801(\$0321)	0801(\$0321)
0061(\$003D)	0062(\$003E)	0163(\$00A3)	0163(\$00A3)			0055(\$0037)	0056(\$0038)			0802(\$0322)	0802(\$0322)
0065(\$0041)	0067(\$0043)	0165(\$00A5)	0165(\$00A5)			0056(\$0038)	0057(\$0039)			0803(\$0323)	0803(\$0323)
0066(\$0042)	0068(\$0044)	0174(\$00AE)	0174(\$00AE)			0057(\$0039)	0058(\$003A)			0804(\$0324)	0804(\$0324)
0067(\$0043)	0069(\$0045)	0175(\$00AF)	0175(\$00AF)			0058(\$003A)	0059(\$003B)			0805(\$0325)	0805(\$0325)
0068(\$0044)	0070(\$0046)	0177(\$00B2)	0177(\$00B2)			0059(\$003B)	0060(\$003C)			0806(\$0326)	0806(\$0326)
0069(\$0045)	0071(\$0047)	0179(\$00B3)	0179(\$00B3)			0060(\$003C)	0061(\$003D)			0807(\$0327)	0807(\$0327)
0070(\$0046)	0072(\$0048)	0183(\$00B7)	0183(\$00B7)			0061(\$003D)	0062(\$003E)			0808(\$0328)	0808(\$0328)
0071(\$0047)	0073(\$0049)	0184(\$00B8)	0184(\$00B8)			0062(\$003E)	0063(\$003F)			0809(\$0329)	0809(\$0329)
0072(\$0048)	0074(\$004A)	0185(\$00B9)	0185(\$00B9)			0063(\$003F)	0064(\$0040)			0810(\$032A)	0810(\$032A)
0073(\$0049)	0075(\$004B)	0186(\$00BA)	0186(\$00BA)			0064(\$0040)	0065(\$0041)			0811(\$032B)	0811(\$032B)
0074(\$004A)	0076(\$004C)	0187(\$00BB)	0187(\$00BB)			0065(\$0041)	0066(\$0042)			0812(\$032C)	0812(\$032C)
0077(\$004D)	0079(\$004F)	0188(\$00BC)	0188(\$00BC)			0066(\$0042)	0067(\$0043)			0813(\$032D)	0813(\$032D)
0078(\$004E)	0080(\$0050)	0193(\$00C1)	0193(\$00C1)			0067(\$0043)	0068(\$0044)			0814(\$032E)	0814(\$032E)
0079(\$004F)	0081(\$0051)	0194(\$00C2)	0194(\$00C2)			0068(\$0044)	0069(\$0045)			0815(\$032F)	0815(\$032F)
0084(\$0054)	0086(\$0056)	0195(\$00C3)	0195(\$00C3)			0069(\$0045)	0070(\$0046)			0816(\$0330)	0816(\$0330)
0084(\$0054)	0087(\$0057)	0196(\$00C4)	0196(\$00C4)			0070(\$0046)	0071(\$0047)			0817(\$0331)	0817(\$0331)
0085(\$0055)	0088(\$0058)	0197(\$00C5)	0212(\$00D4)			0071(\$0047)	0072(\$0048)			0818(\$0332)	0818(\$0332)
0090(\$005A)	0092(\$005C)	0198(\$00C6)	0208(\$00D0)			0072(\$0048)	0073(\$0049)			0819(\$0333)	0819(\$0333)
0091(\$005B)	0093(\$005D)	0200(\$00C8)	0234(\$00EA)			0073(\$0049)	0074(\$004A)			0828(\$033C)	2816(\$0B00)
0095(\$005F)	0097(\$0061)	0201(\$00C9)	0232(\$00E8)			0074(\$004A)	0075(\$004B)				
0096(\$0060)	0098(\$0062)	0202(\$00CA)	0233(\$00E9)			0075(\$004B)	0076(\$004C)				
0097(\$0061)	0099(\$0063)	0203(\$00CB)	0213(\$00D5)			0076(\$004C)	0077(\$004D)				
0098(\$0062)	0100(\$0064)	0208(\$00D0)	0214(\$00D6)			0077(\$004D)	0078(\$004E)				
0099(\$0063)	0101(\$0065)	0211(\$00D3)	0236(\$00EC)			0078(\$004E)	0079(\$004F)				

If you find additions or corrections, please send them to CCCC, Inc., PO Box 32548, Tucson, AZ 85751 Att: Dave. so we can keep this list up to date and pass it on.

CHAPTER NEWS

FT. WORTH

The Fort Worth Chapter will meet October 12 at 1:30 in Room 3 at GDRA. We will have an explanation of the club's bulletin board system by Okley Moss, the SysOp, himself.

Many thanks to Harold Williams for his interesting and informative talk on the disk directory, and to Joe Orr for reviewing some good software from the club library. Thanks, too, to those who brought their computer equipment to the meeting.

November 16th is election day for the chapter, so we need to have nominations at the October meeting. If you don't volunteer, you may be drafted!

-Mary Louise Hagemeyer

ARLINGTON

The September program on Telecommunications was a major success. As a followup, Billy Godfrey will present a program on terminal software at the October meeting. Ray Montoro will demonstrate the features of the Hayes modem. The meeting will be 10:00 AM October 12 at the Downtown Arlington Library. This will be the time and location of the remaining chapter meetings this year.-Jonathan Riba



LIBRARY NEWS

by Tony Velez

In the last few months we have gotten quite a few new disks in our club library. We now have well over 200 disk in the club library. Many were donated by other clubs but we have an ever increasing number that are donated by some of our own club members. These are either music or utilities that are written or compiled by our members. We appreciate their efforts and hard work on these programs and I hope they keep up the good work.

If anyone else have a program(s) that they would like to donate please contact me anytime at 282-7774. Your efforts would be greatly appreciated by your fellow members.

FT. WORTH NIGHT

The FWNC had an outstanding demonstration on music programs for the C64 at the September meeting. As expected, Larry Groebe's music demonstration was terrific.

Our October presentation will be on Startext, with a demonstration and if time permits, we will have a Spreadsheet demonstration as well. The October meeting will be at 7 PM, Monday, October 21, at St. Elisabeth's Episcopal Church, 5910 Black Oak Lane in River Oaks.- Bruce Umbreit

GRAND PRAIRIE

The G. P. chapter will meet at the Grand Prairie Public Library, Saturday, October 12 at 1:30 PM. The Superwedge will be reviewed and demonstrated by Hank Barbre. We need volunteers for next year's officers to insure survival. The usual Tuesday evening session will be Sept. 22, at 6:00 PM at the same library.-Raymond W. Sloan

MCCC QUARTERLY MEETING

The October meeting of the Mid-Cities Commodore Club will feature telecommunications services. There will be live demonstrations of the PlayNET, Startext, and Viewtron services. These services offer news, electronic mail, encyclopedia information, upload, download, and recreational activities. MOCC members will have the opportunity to join some services at special rates. The meeting is scheduled for 10:00 AM, October 19 at the Western Hills Inn. Please note the change of meeting time and location.

As usual library services will be available. Disks and disk storage boxes will be offered at special rates for club members. All members are encouraged to bring software and hardware to set up for demonstrations.

-Harold Williams

C-128 NOTES

by Michael LaPaglia
CCCC, Tucson, AZ

FASTLOAD: Fastload will work in the 64 mode IF you do it properly. First, turn off the drive AND the computer. Insert the Fastload cartridge. Turn on the drive, then hold down the C= key and turn the 128 on. If after 20 seconds you do not have an opening screen press the reset button.

The poke and peek commands have new abbreviations shift the third letter not the second. Poke = poK; peek = peK (po=pot to be safe). Shift the third letter on all commands.

To load and run ANY basic program on disk, use the command ' RUN "PRG NAME" ' where "PRGNAME" = the name of the program you want to run. This will allow the load and run of more than just the first program on the disk.

To load and run the first program on the disk (LOAD"+", 8: RUN), press SHIFT+RUN/STOP.

POKE 808,100 to disable run/stop restore.

POKE 808,110 to enable run/stop restore.

If you hold down the run/stop key and press the reset switch you will

warmstart the 128 and be in the monitor. Type X and you will find your BASIC program intact. This is useful if you ever lock up the machine.

An easy way to use the DLOAD command to load from the directory is to reprogram F2 to read KEY2, "DLOAD[17cursor rights]:". This will place the colon after the file name to prevent a syntax error if you load from the directory.

When using the OPEN statment to open the RS-232 port (modem), you must use both the command reg. and the control reg. Example:

OPEN2,2,2,CHR\$(6)+CHR\$(0) [right]

OPEN2,2,2,CHR\$(6) [wrong]

CP/M disks made on the 064 CP/M cartridge WILL work on the 128 with a 1541 drive IF you BOOT the CP/M 3. 0 disk first.

In the manual, the descriptions for ESC O and ESC C are reversed.

POKE 53281, x and POKE 53280, x remain the same in the C-128 mode for 40 column display.

The BOOT "filename" command does not work with the 1541 but does work with the 1571 drive. The BOOT command will work with either drive.

Try this: SYS32800,123,45,6.
PRINT CHR\$(7) produces a bell sound.

MCCC NEWS

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